# TEH Deluxe Single Shot Rifle

This booklet contains information that is essential to the safe use and maintenance of the TCR Deluxe Rifle or TCR '83 Aristocrat Single Shot Rifle. Throughout this manual, reference will be made to the TCR '83 Rifle. The operation and maintenance of the TCR Deluxe Rifle is identical. You must read this material in its entirety and fully understand its significance before you can safely use this firearm. If a TCR Deluxe or '83 Aristocrat Rifle is loaned or sold (by an individual or dealer) this booklet must accompany the firearm. Replacement booklets are available at no charge from our factory.



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# Know Your Thompson/Center TCR Rifle Before You Attempt To Use It!

Designed as a Hunting/Sports Rifle, the TCR is uniquely different from other firearms. Its single shot, break open action is relatively simple to understand and safe when the required ingredients of "common sense" and "safe gun handling" are applied to its use and care.

However, do not assume that a familiarity with other firearms has equipped you with a knowledge of "safe gun handling" as these words now apply to your new TCR. Each gun design is different from another and each functions accordingly.

All machines, be they chain saws, automobiles, lawnmowers or firearms are built to function as mindless mechanical slaves. They serve only as well as your intellect dictates. Carefully used your chain saw will cut up a winter's supply of firewood. Carelessly used your chain saw will cut other things with able willingness. A firearm

is no different - it is equally nonselective as to target or purpose.

Examine your TCR Rifle at the time of purchase. Be certain that it is unloaded and undamaged as Thompson/Center Arms Company cannot control the handling of this product after it leaves our factory. The dealer will be pleased to assist you in making this examination and will answer any questions. If you are unfamiliar with firearms and safe gun handling procedure, seek further instruction by attending courses run by your local gun clubs, NRA approved instructors or other qualified organizations.

Inasmuch as the responsibility for the use of a firearm rests with its user, you must understand the mechanics before you can shoulder the responsibility for its use. That is what this booklet is all about.

YOU MUST READ THIS MATERIAL BEFORE USING YOUR TCR RIFLE.

## GENERAL RULES FOR USE AND HAN-DLING OF THE TCR'83 SPORTS RIFLE

- The overall functioning and safety features of the TCR'83 are different from other rifles. You must read and understand the working of the TCR'83 as explained in this booklet before attempting to use it.
- Always point the muzzle of your TCR'83 downrange. The possibility of accidental discharge is a constant danger when using a firearm. If the muzzle is pointed downrange, away from yourself, other people, domestic animals or property, then there can be no injury or damage from an accidental discharge.
- Never load your TCR'83 until you are actually engaged in hunting or target shooting. A loaded firearm requires your complete concentration. Never load your TCR'83 until you are actually in

the woods away from other members of your hunting party and directing your complete attention to the firearm. Always unload the firearm before you return to camp or to your vehicle. If you should encounter other hunters in the woods, unload the rifle before approaching them and do not reload it until they have safely left the vicinity.

Never hand a loaded TCR '83 Rifle to another person. Never store a loaded TCR '83 in your home. Never cross a fence, climb a tree, jump a ditch or engage in any activity which distracts your attention while holding or carrying a loaded TCR '83. Never attempt to clean a loaded TCR '83.

When using a TCR'83 Rifle on the range, never load it until you are ready to fire. Failure to observe these rules may result in an accidental discharge which can cause injury or death to yourself or others.

- Never transport or carry a loaded TCR'83 Rifle in a vehicle. Due to the large number of firearm accidents which occur in or near a vehicle, adherence to this rule is extremely important. In most states, game laws strictly forbid the carrying of a loaded firearm in a vehicle or the taking of game from a road or vehicle. The rules of safe gun handling and common sense coupled with your responsibility as an ethical sportsman prohibit this practice. Never, under any circumstances, carry a loaded TCR'83 Rifle in a vehicle of any type. Be certain that you are a safe distance away from the vehicle, road and companions before loading. When returning, unload the rifle a safe distance away from the vehicle and companions.
- Be physically fit and mentally alert when using your TCR'83 Rifle. The use of your TCR'83 involves forceful physical actions which require strength and concentration. Never use alcoholic beverages or drugs before shooting or handling your TCR'83. Never use your TCR'83 when you are overly tired. If you use medication or have medical implants consult your physician before using your TCR'83.

- 6 Know the function of your TCR'83 before firing Be sure the rifle is loaded with the proper ammo nition. Be sure the breech is securely locked. Be sure the barrel is clear of obstructions (including excess oil, mud, dirt, snow or any foreign material). Failure to observe this rule may result in damage to the gun and injury to the shooter or bystander.
- De sure of your target. Never fire your TCR'83 unless there is a backstop behind your target. Never fire your TCR'83 in the field unless you have a clear view of your target. Never fire at targets which appear on the crest of a hill or above the horizon line. Never fire at a noise or movement in the brush. If hunting in an area where there are other hunters, always know where members of your party and other parties are located. Never fire your TCR'83 if there is a possibility that another hunter is downrange. Never shoot at flat, hard surfaces such as rocks or water. A bullet may ricochet off these surfaces causing injury or death.

- Use binoculars for target identification. Never aim through a telescopic sight at an unknown target. Use binoculars to identify game and raise the rifle only when you are certain of your target and ready to fire.
- Respect the TCR'83 Rifle. Used properly, your TCR'83 will give you years of pleasure. Used improperly, carelessly or abused, your TCR'83 is a dangerous instrument and is capable of causing serious injury, death or property damage. Always treat your TCR'83 as if it were loaded. Do not drop your TCR'83 or allow it to be struck a blow. Dropping or striking may cause movement of and/or damage to internal parts in such a manner as to cause an accidental discharge.
- Protect your eyes and ears when firing your TCR'83 Rifle. Always wear shooting glasses to protect your eyesight from air borne particles and ear protectors to guard against hearing loss due to loud noise when firing your TCR'83.

## **AMMUNITION**

#### STANDARD FACTORY LOADED CARTRIDGES

The TCR '83 design provides for the use of interchangeable barrels which are chambered for a variety of factory loaded cartridges. The proper cartridge for each barrel is clearly marked by its standard industry designation on the top left side of each barrel. These barrels should be used with high quality, commercially manufactured ammunition with a packaging and head stamp designation that corresponds exactly to the barrel marking.

Do not reload. Thompson/Center Arms is not responsible for damage or injury resulting from the use of non-standard or reloaded cartridges nor the use of cartridges other than those for which the TCR '83 was factory chambered. Faulty or improperly constructed ammunition, poor brass, incompatible components or the improper use or selection of components or bore obstructions can create chamber and barrel pressures that are far in excess of those for which the TCR '83 was designed. Soft or improper primers or cases can rupture resulting in the uncontrolled release of gas within the action. Any and/or all of these adverse conditions can result in a complete or partial rupture of the firearm which can cause injury

and/or death to yourself or others. If you have any questions concerning the proper ammunition for your TCR '83 Rifle, write or call our factory. Do not fire the rifle!

## CUSTOM ALTERATIONS & CONVERSIONS

TCR'83 Rifles or accessory barrels which are subjected to custom alteration or conversion after leaving our factory are not covered by our warranty. Thompson/Center does not endorse nor recommend any type of custom alteration. Responsibility for such conversions rests totally with the gunsmith or individual performing the conversion. If the work is done improperly or without proper judgment, the rifle can rupture or malfunction causing injury or death to the shooter or bystanders.

**Never Load or** Attempt to Use the TCR '83 Rifle **Until You Become Completely Familiar** With Its Operation!

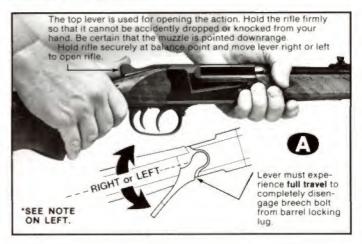
### OPENING, SIMULATING LOADING & CLOSING THE TCR'83 ACTION

Hold the rifle at its balance point as pictured in Photo "A". Bear in mind that the TCR '83 is designed for hunting and sport use. Its proper operation requires the same concentration and care that would normally be given to a quality firearm. Never allow the barrel to drop open without support and never snap the action closed in a one-handed manner.

Use the thumb of your (right or left) hand to push the top lever all the way to the side. Remember that this lever must experience full travel before the breech bolt will completely disengage and the action will open.

\*NOTE: If the top lever on the TCR '83 does not move from side to side easily, check the cross bolt safety. The rifle will not open if the hammer is in fired position and the safety is "on". Simply release the safety (allowing the sear to move) and the rifle will open.

As the action opens, exposing the chamber, a full series of mechanical events will have taken place. It is necessary for you to understand and to appreciate the significance of these moving parts if you are to use your TCR '83 Rifle correctly.

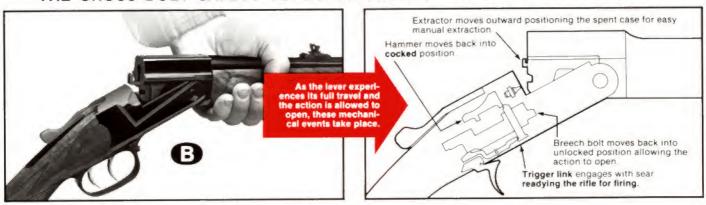


THE SEQUENCE OF MECHANICAL EVENTS PICTURED ARE IMPORTANT TO THE PROPER FUNCTIONING OF THIS FIREARM. INASMUCH AS THEY ARE ACCOMPLISHED BY A DIRECT AND POSITIVE MOVEMENT OF THE TOP LEVER, YOU MUST ALLOW THE LEVER TO EXPERIENCE FULL TRAVEL TO ITS STOP POSITION.

Study Photo "B" and its accompanying line drawing

carefully. Note how the act of moving the top lever has prepared the rifle for firing. If you were to load the chamber at this point and close the action, the rifle would be unsafe. The rifle would be unsafe because, as of yet, you have not engaged the safety mechanism and there is no guard against accidental firing if the front (firing) trigger is released. This safety mechanism was designed for your protection. It must be used.

## BEFORE LOADING THE TCR'83 AND CLOSING THE ACTION YOU MUST ENGAGE THE CROSS BOLT SAFETY TO GUARD AGAINST ACCIDENTAL DISCHARGE.



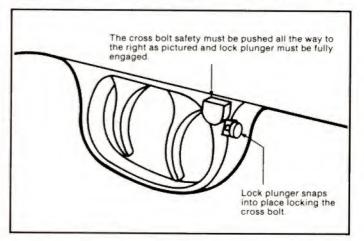
#### **ENGAGE THE CROSS BOLT SAFETY**

Study Photo "C" with its accompanying line drawing. Reach forward and press the cross bolt safety, which is located in the front portion of the trigger guard, all the way to the right. Be certain that the cross bolt experiences full travel and that the lock plunger has snapped into its locking position. When the safety is properly

engaged you will not be able to return it to its "off" position by pressure on the cross bolt alone. To return the safety to its "off" position will require a deliberate "two directional" release. Using both your thumb and forefinger, press in on the lock plunger as you push the cross bolt to the left ("off") position. Practice this operation until you have completely committed it to memory.

This safety device was designed for your protection.





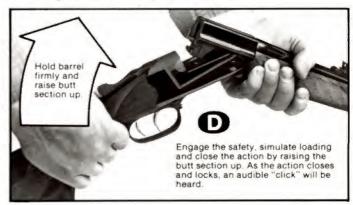
Failure to use it or to use it improperly can result in an accidental discharge which can cause injury and/or death to yourself or others.

Be certain that the safety on your TCR '83 Rifle functions exactly as described in this instructional booklet. If the safety on your rifle does not function in the proper manner, return the rifle to the Thompson/Center Service Department (see address on front cover). Do not load or attempt to fire any TCR '83 Rifle which has a defective or altered safety device.

Return the cross bolt to its "on" position (all the way to the right) and continue with simulated loading.

Once the safety is on you would normally load the firearm, so let's assume that you have done so. DON'T ACTUALLY LOAD AND FIRE YOUR TCR'83 UNTIL YOU HAVE READ THROUGH THIS BOOKLET. When loading the rifle, the barrel is tilted slightly downward and a cartridge is inserted into the chamber in the conventional manner. The cartridge is pushed forward until its head contacts the extractor. Photo "D" shows the proper method of closing the action. Always close the rifle in the manner described by holding the barrel firmly and pulling up on the receiver or butt section. This assures that the cartridge will remain forward in the

chamber and not be crushed in the closing of the action Equally it provides time for internal parts to function in their proper sequence (breech bolt moves forward and engages with the barrel locking lug). Never "snap" the action closed. If the action does not close smoothly, remove the live round from the chamber and inspect the cartridge and chamber. If you are unable to recognize and correct the problem, have the rifle examined by a qualified gunsmith. Forcing the action closed on a live round may cause accidental discharge. An accidental discharge can cause injury or death.



The safety on the TCR'83 is a mechanical device and is not foolproof. It is intended to be used in combination with common sense and safe gun handling practices. Do not rely on the safety to overcome the danger of injury to yourself or others from careless handling or abuse of your TCR'83. Do not load the TCR'83 until you are ready to use it. Always keep the muzzle of your TCR'83 pointed downrange.

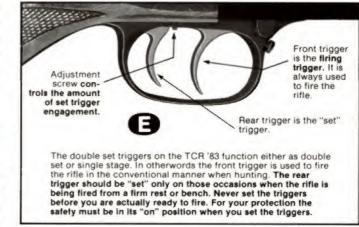
If the TCR '83 is dropped or struck a hard blow, the following steps should be taken. The action should be opened, the gun should be unloaded, the bore should be checked for obstructions, the action should be functioned to be sure that the safety and triggers work properly, and that there are not broken or deformed parts. If any problem or malfunction is noted, the firearm should be returned to the factory for service (see page 15).

#### ADJUSTABLE DOUBLE SET TRIGGERS

The TCR'83 is equipped with adjustable double set triggers (see Photo "E"). As pictured, the front trigger is always the firing trigger while the rear trigger is the "set" trigger. When in its "set" position, the rear trigger will reduce letoff travel ("creep") in the front trigger and

**lighten trigger pull.** Inasmuch as the "setting action" of the rear trigger considerably lightens the trigger pull required to fire the rifle, your complete concentration is required once the trigger is "set".

IMPROPER USE AND/OR IMPROPER ADJUSTMENT OF THE SET TRIGGERS CAN RESULT IN AN ACCIDENTAL DISCHARGE WHICH CAN CAUSE INJURY AND/OR DEATH TO YOURSELF OR OTHERS.



The set triggers on your TCR'83 will function either as "double set" or "single stage". In other words, you need not set the rear trigger to fire the rifle. The rifle will fire by simply releasing the safety and squeezing the front trigger in the conventional manner.

Proper use of this set trigger option falls into the distinct categories of **HOW** and **WHEN** to use the device.

when to use the set trigger option—The set trigger on your TCR '83 is a luxury feature designed to lighten trigger pull and to improve marksmanship on those occasions when the rifle is being fired from a firm rest and at a stationary target. Learn to think of this set trigger option in the same manner as you think of the windshield wipers of your car. It is to be used only on those occasions when it is logical to do so! Surely you do not use your wipers in fair weather simply because they are part of the automobile. Equally you do not set the trigger on a sporting rifle every time you fire a shot.

Use the set trigger option only when shooting from a firm rest and at a stationary target. Set the trigger only when the muzzle of the rifle is on target and the instant before firing. Never set the trigger unless the safety is in its "on" position. Never allow the barrel of the rifle to leave its rest position once the trigger is set.

#### WHEN NOT TO USE THE SET TRIGGER OPTION -

The TCR'83 Rifle should never be carried with the trigger in "set" position. For all hunting purposes, walking, sitting on a stand, while climbing and negotiating obstacles, the trigger should remain "unset" with the safety in its "on" position. If game is sighted and you decide to shoot, use the front trigger in the conventional (single stage) manner. Do not set the rear trigger for the trigger pull will be much too light for practical shooting when the hunter is excited and in the presence of game.



#### HOW TO SET THE TRIGGER

Study Photo "F". With the safety on, the rifle in a rest position and the muzzle on target, reach forward and set the trigger by pulling back on the rear trigger. When the trigger "sets" an audible "click" will be heard. THE FRONT TRIGGER NOW HAS A VERY LIGHT TRIGGER PULL — THE FIREARM NOW REQUIRES YOUR COMPLETE CONCENTRATION. Leave the safety on and carefully squeeze the front trigger taking mental note of how little pressure is required to fire the trigger mechanism. With the chamber unloaded and the safety in its "on" position, practice setting the rear trigger and squeezing the front trigger. To guard against accidental discharge the safety must be in its "on" position whenever you "set" the trigger.

When actually using the set trigger to fire the rifle at a stationary target, you must be sitting in a comfortable position and the barrel must be on a firm rest. To guard against accidental discharge, NO MOVEMENT OF THE BODY AND/OR MUZZLE IS PERMISSIBLE ONCE THE TRIGGER IS SET.

When the muzzle is on target and in the instant before firing, "set" the trigger and then push the safety to its "off" position. THE TRIGGER FINGER SHOULD NOT

## CONTACT THE FRONT TRIGGER UNTIL THE INSTANT OF FIRING!

You have now practiced setting the trigger and simulated firing. It should be clear when this optional device is to be used and, equally, when it is not to be used. Common sense and safe gun handling dictates that this is not a device to be toyed with nor is it intended for casual use. Engage the set trigger option only when shooting from a bench or firm rest and use it only in the manner described.

## SHOULD YOU DECIDE NOT TO FIRE THE RIFLE AFTER THE TRIGGER HAS BEEN SET.

If you set the trigger and then decide not to fire the rifle, the trigger must be unset immediately. The procedure for unsetting the trigger is as follows: WITHOUT REMOVING THE RIFLE FROM ITS REST RETURN THE SAFETY TO ITS "ON" POSITION (SEE PAGE 7). KEEP THE MUZZLE DOWNRANGE AS YOU CAREFULLY LIFT THE RIFLE FROM ITS REST. OPEN THE ACTION AND REMOVE THE CARTRIDGE FROM THE CHAMBER. LEAVE THE ACTION OPEN AND PULL THE FRONT TRIGGER TO "UNSET" THE TRIGGER MECHANISM.

Note carefully that while this action will "unset" the trigger mechanism the hammer will stay in cocked position (see line drawing on page 6). Whenever a cartridge is chambered and the action closed, the rifle is armed.

IMPROPER USE AND/OR ADJUSTMENT OF THE SET TRIGGER CAN CAUSE AN ACCIDENTAL DISCHARGE WHICH MAY CAUSE INJURY AND/OR DEATH TO YOURSELF OR OTHERS.

#### ADJUSTMENT OF THE SET TRIGGER

The adjustment screw located in front of the rear trigger controls the amount of **set trigger engagement**. This regulates the amount of let off travel when the rifle is being fired with the trigger set.

Turning the set trigger adjustment screw will not lighten single stage trigger pull! Single stage trigger pull is nonadjustable.

The set trigger on your TCR '83 Rifle was adjusted to our production standard before shipment. It was set to what we feel is an optimum let off travel. If additional adjustment is required it should be made with discretion.

**Caution:** Too light an adjustment can cause premature firing which may result in injury or death to the shooter or bystanders.

In order to check the adjustment for let off travel with the trigger set the following procedure should be used.

Remove the forend and barrel from the TCR 83. Working with the receiver section only, push the cross bolt safety to its "on" position. Set the rear trigger. With the trigger "set", carefully turn the adjustment screw clockwise until the trigger mechanism "snaps" into the "unset" position. Stop turning the instant the mechanism "snaps". Do not turn the adjustment screw beyond this point for it indicates the point of total set trigger disengagement. When the mechanism "snaps" TURN THE ADJUSTMENT SCREW COUNTER CLOCKWISE ONE FULL TURN. This is the minimum setting for let off travel with the trigger set. If you require additional let off travel continue turning the screw counter clockwise until you reach the desired engagement. In no event should the engagement be set at less than one full turn counter clockwise from the point of total set trigger disengagement.

#### CHANGING BARRELS

With the action closed, raise the short forend lever until the long lever (which lays beneath it) is lifted out of the stock inlet. Pull up on the long lever and the forend will detach itself. While holding the barrel firmly, open the action and allow the barrel to rotate downwards in a circular movement. This action will remove the barrel. To replace the barrel simply reverse the process. Be sure that the TCR '83 is unloaded before disassembling or changing barrels in order to prevent accidental discharge which may cause injury or death. Use barrels of Thompson/Center manufacture only which are marked with the cartridge designation and our company name.

# IRON SIGHT ADJUSTMENT

Your TCR'83 Rifle has been targeted before shipment, however, some additional sight adjustment may be necessary to compensate for individual holding.

All adjustments are taken on the rear sight. Turning the windage screw counterclockwise moves the sight (and point of impact) to the left. Turning the windage screw clockwise moves the sight (and point of impact) to the right.

To correct elevation (up or down) unlock the set screw which is located in the rear of the sight. Slide the leaf to the position desired and then tighten the set screw.

# SCOPE MOUNTING

Factory iron sights on the TCR '83 are removable. All barrels are drilled and tapped for scope mounts. Slave screws used to fill scope mount holes can be repositioned to fill those holes left by sight removal.

Major scope mount manufacturers offer bases which are specifically designed to fit the TCR '83 factory hole spacing. **Do not drill additional holes in the barrel** as this could weaken its structure and contribute to a rupture causing injury and/or death to yourself and others.

# BARREL OBSTRUCTIONS

Before loading the TCR '83, check the bore to insure that it is free of obstructions (cleaning patches, excess oil, mud, snow or other foreign materials). If the firearm is dropped it should be unloaded and inspected to insure that the bore has not become clogged with dirt, snow, twigs or other foreign material.

If, when firing, the report is weak or peculiar, stop immediately. **Inspect the bore for a stuck bullet.** If the bore is obstructed, return the barrel to the factory. **Do not continue to fire the rifle.** 

#### FAILURE TO FIRE

If the TCR '83 fails to fire, keep the muzzle pointed at the target or in a safe direction for at least sixty (60) seconds. If the TCR '83 does not fire in sixty seconds, hold the rifle with the muzzle pointed in a safe direction and keep your face, head and body well away from the breech section as you open the action. Faulty or improperly reloaded ammunition can "hang fire" or ignite in an unpredictable manner causing serious injury.

Extract and examine the cartridge. If the primer on the cartridge is indented, it should be disposed of in accordance with the ammunition manufacturer's instructions for faulty ammunition or in any safe manner. If the primer on the cartridge is not indented or only lightly indented, then your TCR'83 should be examined by a qualified gunsmith or returned to the factory for service under our warranty program.

#### LUBRICATION

Guard against malfunction and sludge build-up by using only dry lubricant such as graphite on the internal moving parts. Use gun oil or light machine oil to protect the outside surface.

#### SERVICE Tel. 603-332-2441

Should your firearm require adjustment, repair or refinishing, we strongly recommend that the rifle be returned to the factory. There is no other way to ensure that the work will be done by a competent staff of trained technicians.

Rifles returned to the factory should be **marked to the attention of the service department.** A letter of instructions should be enclosed with the firearm. Adherence to these suggestions will prevent loss of time and facilitate handling at the factory.

Our Service Department will give your rifle a complete inspection. They will evaluate the problem or problems specified in your covering letter. If the work required is not covered by our "Lifetime Warranty" (see page 16) you will receive a **quotation which must be authorized by you.** No actual work will be done without your approval.

Ship complete rifles or receivers U.P.S. Barrels only may be sent parcel post or U.P.S.

#### STATEMENT OF LIABILITY

This rifle is classified as a **FIREARM OR DANGEROUS WEAPON** and is surrendered by us with the express understanding that we assume no liability for its resale or safe handling under local laws and regulations. Thompson/Center Arms assumes no responsibility for physical injury or property damage resulting from either intentional or accidental discharge, or for the function of any gun subject to influences beyond our control, and will honor no claim which may result from careless handling, unauthorized adjustments, defective or improper ammunition, corrosion or neglect.

For your protection, examine your rifle carefully at the time of purchase. Fill out and mail the registration card promptly. Be certain that it bears the rifle's serial number which you will find on the receiver.

Thompson/Center Arms does not approve nor recommend any type of custom conversion or alteration. TCR '83 Rifles subjected to alteration are not covered by our factory warranty. Responsibility for alterations rests totally with the gunsmith or individual performing the work. The consumer is warned that if such work is done improperly or without proper judgment, the TCR '83 can malfunction or rupture causing injury or death to the shooter and/or bystanders.

# LIMITED WARRANTY

THOMPSON/CENTER ARMS warrants this firearm against any defect in material or manufacture for the **LIFETIME OF THE ORIGINAL PURCHASER**. Any firearm or part defective in material or manufacture and returned, postage paid, to the factory at Rochester, New Hampshire 03867, will be repaired or replaced, to our commercial standard free of charge, and returned to the owner postage prepaid. This Warranty is established by return of our authorized warranty card which should be done within thirty (30) days of purchase. **This Warranty does not cover any damage caused by abuse, misuse or custom alteration of the firearm**.

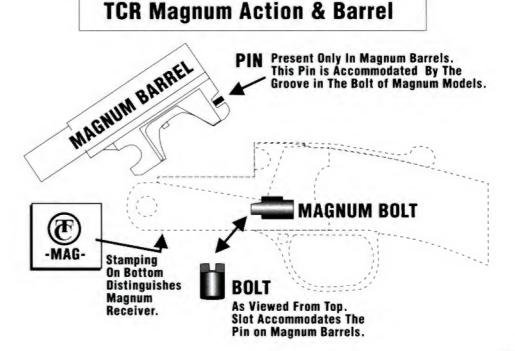
This Warranty gives you specific legal rights, and you may also have other rights which vary from State to State.

Address all correspondence and inquiries to: THOMPSON/CENTER ARMS, Farmington Road, P.O. Box 2426, Rochester, New Hampshire 03867

The TCR Deluxe Models have Magnum Receivers and will accomodate magnum barrels. They can be identified by the distinguishing characteristics shown in the diagram to the right. These are:

- A Stamp that shows the T/C logo and the word
   MAG -.
- The locking bolt with a vertical slot in it to accommodate the barrel pin.
- The barrel with a pin that is accommodated by the vertical slot in the bolt.

Receivers marked "MAG" will accept any TCR '83 or '87 barrel. Non-magnum receivers WILL NOT accept magnum barrels.



Note: This Model is Out of Production. For Reference Use Only.

Part No.00016855